

REMARKS

The present invention relates to a top coating composition which comprises a coating film-forming resin (I) and a silicate-grafted resin (IV) resulting from grafted polymerization of a silicate compound (II) onto a hydrolyzable silyl-containing resin (III).

In the Office Action dated August 14, 2002, it is appreciated that the Examiner has indicated at pages 4 and 5 of the Office Action that claims 2, 5, and 6 are considered allowable over the cited references and that the claims would be allowable if amended to overcome the rejections under 35 U.S.C. § 112 and to include all of the limitations of the base and any intervening claims.

At page 2 of the Office Action, the Examiner acknowledged Applicants' claim for priority, and objected to certain disclosure in the specification at pages 6-7 from a technical viewpoint. Furthermore, the Examiner objected to the phrase "obtainable by" in claims 3, 5 and 7 (*sic* - actually present only in claims 3 and 5, not in claim 7), and the Examiner rejected claims 1-7 under 35 U.S.C. § 112, second paragraph as being indefinite with respect to part of the recitation in claim 1 including the use of the phrase "besides a", and the Examiner indicated an impression that claim 2 should be amended consistent with any amendment of claim 1.

Lastly, at pages 3-5 of the Office Action, the prior art rejections were set forth. First, claims 1, 3-4, and 7 were rejected under 35 U.S.C. § 102(b) as anticipated by Ohnishi et al, U.S.

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Patent No. 5,635,572 (Ohnishi '572) and Ohnishi et al, U.S. Patent No. 5,855,960 (Ohnishi '960), which it was noted shared the same disclosure; and claims 1 and 4 were rejected under 35 U.S.C. § 102(e) based on Mizutani et al., U.S. Patent No. 6,013,724 (Mizutani '724).

Furthermore, at pages 6-7, the Examiner noted Tamai et al, U.S. Patent No. 6,383,648 (Tamai '648) and Karuga et al, U.S. Patent No. 6,271,293 (Karuga '293) as potentially relevant (MPEP 2136), with respect to the original PCT documents which the Examiner indicated were submitted for translation, and the Examiner indicated reasons why he believed the corresponding PCT documents for Tamai '648 and Karuga '293 might raise issues.

In response to the Office Action, Applicants first express their appreciation for the Examiner's indication of the allowability of claims 2, 5, and 6. In view of the amendments to the claims and for the reasons set forth below, Applicants submit that claims 1, 3, 4, and 7 should also be allowed.

First, with respect to the objection to the specification, the specification has been amended to insert a recitation regarding the silicate compound (II) at page 6, and deleted the first full paragraph appearing at page 7, lines 7-12 responsive to the Examiner's comments. No issue of new matter is raised, and it is respectfully submitted that the amendment to the specification obviates the reason for objection.

Regarding the Examiner's objections to the phrase "obtainable by" in claims 3, 5, and 7, in accordance with the Examiner's suggestion, the term "obtainable" has been replaced with "obtained" in claims 3 and 5, thus obviating the stated reason for objection.

With respect to the rejection of claims 1-7 under 35 U.S.C. § 112, second paragraph, based on the recitation noted by the Examiner in claim 1, claim 1 has been amended herein above to delete the clause which included the objected to phrase "besides a", which is unnecessary in view of the recitation of the final paragraph of claim 1. Accordingly, it is respectfully submitted that the reason for rejection has been overcome, and claims 1-7 are in full compliance with the requirements of 35 U.S.C. § 112.

Applicants respectfully traverse the prior art rejections. Particularly, it is noted that the present invention according to amended claim 1 is directed to a top coating composition which comprises a coating film-forming resin (I) and a silicate-grafted resin (IV) resulting from graft polymerization of a silicate compound (II) onto a hydrolyzable silyl-containing resin (III).

In the cited prior references of Ohnishi '572, Ohnishi '960, Mizutani '724, and to the extent they might be applied to Tamai '648 and Karuga '293, there is no disclosure of a silicate-grafted resin (IV). Accordingly, the present invention is completely novel and not anticipated under any section of 35 U.S.C. § 102 by the cited references.

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Furthermore, Applicants note that the top coating composition of the present invention is quite excellent compared to a top coating composition which comprises a silicate compound (II) and the hydrolyzable silyl-containing resin (III) in preventing whitening after water resistance testing and in water resistance. In this regard, submitted herewith is a Declaration Under 37 C.F.R. § 1.132 clearly showing such results. These results are unexpected to a person having ordinary skill in the art, and further support the patentability of the present invention vis-à-vis the cited prior art.

In view of the foregoing, it is respectfully submitted that remaining amended claims 1-7 are in full compliance with the requirements under 35 U.S.C. § 112 and are patentable over the cited prior art. Therefore, withdrawal of the rejections and allowance of claims 1-7 is respectfully submitted to be proper.

Early favorable action is earnestly solicited.

In the event that the Examiner believes that it may facilitate the further prosecution of this application, the Examiner is invited to contact the undersigned attorney at the local Washington, D.C. telephone number indicated below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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Date: February 10, 2003


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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification is changed as follows:

Enter the following paragraph before the first full paragraph on page 6.

As specific examples of the above silicate compound (II), there may be mentioned tetramethoxysilane, tetraethoxysilane, tetra-n-propoxysilane, tetra-i-propoxysilane, tetra-n-butoxysilane, tetra-l-butoxysilane, tetra-t-butoxysilane, tetra-n-pentoxysilane, tetra-i-pentoxysilane, tetraneopentoxysilane and the like; and condensation products derived from one or more of them, among others.

Please delete the first full paragraph on page 7 in its entirety.

~~Particularly preferred modified silicate compounds (II) can be obtained by subjecting methyl silicate and/or a condensation product thereof as represented by the general formula (2) given below, or ethyl silicate and/or a condensation product thereof as represented by the general formula (3) given below, as a reaction substrate, to alcohol exchange reaction.~~

IN THE CLAIMS:

The claims are amended as follows:

1. (amended) A top coating composition which comprises
a coating film-forming resin (I);
~~as well as a silicate compound (II) besides a hydrolyzable silyl-containing resin (III)~~

and/or a silicate-grafted resin (IV) resulting from graft polymerization of a silicate compound (II) onto a hydrolysable silyl-containing resin (III).

3. (amended) The top coating composition according to Claim 1, wherein said hydrolysable silyl-containing resin (III) is an acrylic resin-~~obtainable~~ obtained by radical polymerization of a silanol- and/or hydrolysable silyl-containing, radical-polymerizable monomer (III-a), a hydroxyl-containing, radical-polymerizable monomer (III-b) and another radical-polymerizable monomer (III-c).

5. (amended) The top coating composition according to claim 2, wherein said hydrolysable silyl-containing resin (III) is an acrylic resin-~~obtainable~~ obtained by radical polymerization of a silanol- and/or hydrolysable silyl-containing, radical-polymerizable monomer (III-a), a hydroxyl-containing, radical-polymerizable monomer (III-b) and another radical-polymerizable monomer (III-c).